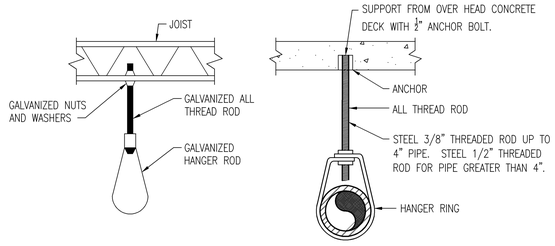
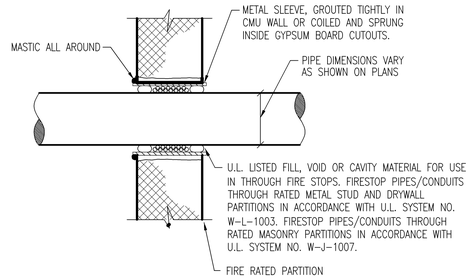

JOIST
GALVANIZED NUTS AND WASHERS
GALVANIZED ALL THREAD ROD
GALVANIZED HANGER ROD
SUPPORT FROM OVER HEAD CONCRETE DECK WITH ½" ANCHOR BOLT.
ANCHOR
ALL THREAD ROD
STEEL 3/8" THREADED ROD UP TO 4" PIPE. STEEL 1/2" THREADED ROD FOR PIPE GREATER THAN 4".
HANGER RING

HANGER SPACING		
MAXIMUM DISTANCE BETWEEN HANGERS		
PIPE SIZE	1" TO 1-1/4"	1-1/2" TO 8"
DISTANCE	12'-0"	15'-0"

PIPE HANGER DETAIL

NFPA 13-1999, 6.2.2

NO SCALE


MASTIC ALL AROUND
METAL SLEEVE, GROUTED TIGHTLY IN CMU WALL OR COILED AND SPRUNG INSIDE GYPSUM BOARD CUTOUTS.
PIPE DIMENSIONS VARY AS SHOWN ON PLANS
U.L. LISTED FILL, VOID OR CAVITY MATERIAL FOR USE IN THROUGH FIRE STOPS. FIRESTOP PIPES/CONDUITS THROUGH RATED METAL STUD AND DRYWALL PARTITIONS IN ACCORDANCE WITH U.L. SYSTEM NO. W-L-1003. FIRESTOP PIPES/CONDUITS THROUGH RATED MASONRY PARTITIONS IN ACCORDANCE WITH U.L. SYSTEM NO. W-J-1007.
FIRE RATED PARTITION

FIRE WALL PENETRATION DETAIL

NO SCALE

FIRE PROTECTION GENERAL NOTES

1. FIRE PROTECTION SYSTEMS SHALL COMPLY WITH:

   NFPA 13 – 2007
   NFPA 22 – 2007

   VIRGINIA UNIFORM STATEWIDE BUILDING CODE 2006 EDITION (VUSBC) INCLUDING FIRE DEPARTMENT STANDARDS.
2. ARRANGE AND COMPLETE FINAL INSPECTIONS AND APPROVALS REQUIRED.
3. FIRE STOP ALL PENETRATIONS OF FIRE WALLS, CEILINGS, FLOORS, ROOFS, ETC. THE PENETRATION SYSTEM SHALL MATCH OR EXCEED THE FIRE RATING OF THE WALL OR FLOOR BEING PENETRATED. REFER TO ARCHITECTURAL PHASING PLANS FOR TEMPORARY FIRE PARTITIONS.
4. SPRINKLERS ARE TO BE COORDINATED WITH ALL ARCHITECTURAL FEATURES, DIFFUSERS, SPEAKERS, LIGHTING FIXTURES, CEILING SYSTEMS, AND STRUCTURAL SYSTEMS.
5. PROVIDE CABINET AND STOCK OF EXTRA SPRINKLER HEADS OF ALL TYPES USED IN ACCORDANCE WITH NFPA 13.
6. PROVIDE DETAIL AND INDICATE TYPE OF HANGERS TO INSTALLED FOR SPRINKLER PIPING. METHODS OF HANGING PIPES, HEADERS, AND BRANCHES SHALL BE IN ACCORDANCE WITH NFPA 13. HANGERS SHALL NOT INTERFERE WITH ANY OTHER TRADES.
7. ALL PIPING SHALL BE METAL. ALL GROOVED END PIPING SHALL BE APPROVED PRIOR TO INSTALLATION BY OWNER AND ENGINEER.
8. ALL SCREWED PIPING SHALL BE MIN. SCHEDULE 30 PIPE IN ACCORDANCE WITH SPECIFICATIONS ASTM A120 AND SHALL BE JOINED BY SCREWED JOINTS IN ACCORDANCE WITH SPECIFICATION ANSI B2.1.
9. PLAIN END FITTINGS WITH MECHANICAL COUPLINGS SHALL NOT BE USED.
10. ALL SPRINKLER PIPING & FITTINGS SHALL BE INSTALLED RUST-FREE, AND MAINTAINED RUST-FREE AT ALL TIMES.
11. AUTOMATIC SPRINKLER TEMPERATURE RATINGS OF FUSIBLE ELEMENTS SHALL BE ORDINARY, UNLESS NOTED OTHERWISE.
12. ALL VALVES FOR FIRE SERVICE SHALL BE LISTED BY THE UNDERWRITER'S LABORATORIES, INC. (UL) AND THE FACTORY MUTUAL LABORATORIES. VALVES SHALL BE FACTORY MARKED "UL" AND "FM", 175 PSI WORKING PRESSURE.
13. ALL VALVES ON THE FIRE PROTECTION SYSTEM SHALL BE ELECTRICALLY SUPERVISED. PROVIDE TAMPER SWITCHES. REFER TO ELECTRICAL DRAWINGS FOR MORE INFORMATION.
14. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
15. FINAL SPRINKLER SHOP DRAWINGS SHALL BE SUBMITTED TO OWNER AND ENGINEER AND THEN TO BCOM AFTER APPROVAL. NO INSTALLATION SHALL BE PERMITTED UNTIL SPRINKLER SHOP DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER AND BCOM. ALLOW TIME FOR MULTIPLE SUBMITTALS.
16. PIPE SHALL BE REAMED AND CLEANED BEFORE ASSEMBLY. THE ENTIRE PIPING SYSTEM SHALL BE FLUSHED CLEAN. THE UNDERGROUND PIPING SHALL BE FLUSHED BEFORE CONNECTION TO ANY ABOVE GROUND PIPING TO REMOVE ANY DEBRIS.
17. INDICATE THE TOTAL SQUARE FOOT AREA PROTECTED BY SYSTEM.
18. INDICATE THE NUMBER OF SPRINKLERS ON EACH RISER.
19. PROVIDE HEAD GUARDS ON SPRINKLE HEADS IN ELECTRIC, MECHANICAL, ELEVATOR, TELEPHONE, AND STORAGE ROOMS.
20. PROVIDE SMOOTH BORE CORROSION RESISTANT OUTLETS FOR INSPECTOR'S TEST VALVES GIVING FLOW EQUIVALENT TO 1 SPRINKLER.
21. FIRE SPRINKLER PIPING SHALL NOT BE LOCATED ABOVE ELECTRICAL PANELBOARDS PER ARTICLE 384-4 OF NFPA 70.
22. PROVIDE ADDITIONAL SPRINKLERS, PIPING, FITTINGS, APPURTENANCES, AND ALL OTHER WORK NECESSARY TO ACCOMMODATE ANY INTERIOR DESIGN LAYOUTS OR CHANGES TO SUCH LAYOUTS WHICH ARE OR MAY BE INCLUDED IN THE WORK. THESE SPRINKLERS AND ASSOCIATED WORK SHALL BE PROVIDED WHERE REQUIRED TO RESOLVE ANY CONFLICTS OR OTHER LAYOUT CHANGES NEEDED TO ACCOMMODATE ALL MISCELLANEOUS ITEMS (I.E. CEILING OFFSETS, SOPHIST, COVES, CODE INSPECTION/INTERPRETATIONS, STRUCTURAL SYSTEM CONFLICTS, ETC.) RELATED TO INTERIOR DESIGN CONFIGURATION CHANGES.
23. BUTTERFLY VALVES SHALL BE ALLOWED DOWNSTREAM OF THE DISCHARGE SIDE OF THE BACKFLOW PREVENTER.
24. CONTRACTOR SHALL VERIFY THE WATER SUPPLY BY PERFORMING A FIRE HYDRANT FLOW TEST PRIOR TO THE DESIGN.
25. THE CONTRACTOR SHALL REMOVE & REINSTALL ALL CEILING TILES & CUT CEILING TILES TO ACCOMMODATE SPRINKLER HEADS.

LEGEND & ABBREVIATIONS

- FIRE SPRINKLER BRANCH PIPE
- F — FIRE SPRINKLER MAIN LINE
- SMOKE PARTITION
- 1 HOUR FIRE RATED WALL (2)
- PIPE TURN UP
- PIPE TURN DOWN (DN)
- SIDEWALL SPRINKLER HEAD
- STANDARD PENDENT HEAD
- UPRIGHT PENDANT HEAD
- CONCEALED PENDANT HEAD
- REMOTE AREA BOUNDARY
- # HYDRAULIC REFERENCE POINT
- # NEW WORK NOTE DESIGNATION
- DETAIL/RISER/ENLARGED PLAN
- SHEET WHERE CUT/SHOWN

FDC	FIRE DEPARTMENT CONNECTION
FP-1	FIRE PUMP MARK
FT	FEET
GPM	GALLONS PER MINUTE
HD	HEAD
HP	HORSE POWER
JP-1	JOCKEY PUMP MARK
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
PSI	PRESSURE PER SQUARE INCH
RPZ	REDUCED PRESSURE ZONE
W/	WITH
WG	WATER GAUGE

FIRE SPRINKLER HEAD SCHEDULE

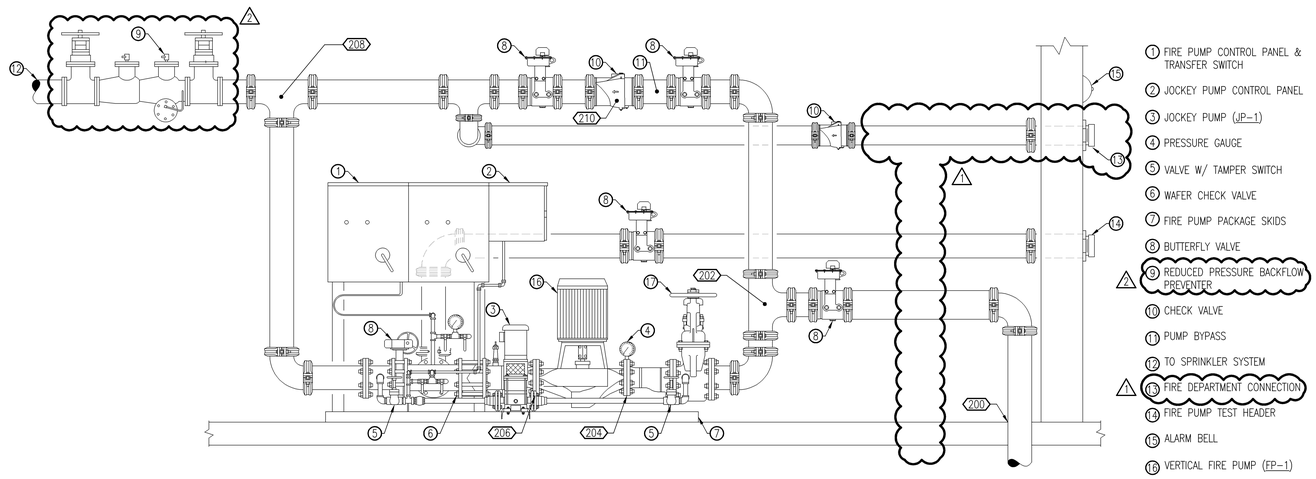
SYM.	MAKE	TYPE	RESPONSE	K	ORIFICE	TEMP.	LINK	FINISH	ESCUTCHEON			
									FINISH	ORIFICE	CUP	SKIRT
◎	VICTAULIC	PENDENT	QUICK	5.6	1/2"	155°	BULB	WHITE	WHITE	1/2"	REC	FLAT
▽	VICTAULIC	SIDEWALL	QUICK	5.6	1/2"	155°	BULB	BRASS	BRASS	1/2"	REC	FLAT
○	VICTAULIC	UPRIGHT	QUICK	5.6	1/2"	155°	BULB	BRASS	BRASS	1/2"	REC	FLAT
●	VICTAULIC	CONCEALED	QUICK	5.6	1/2"	155°	BULB	WHITE	WHITE	1/2"	REC	FLAT

WARSAW CAMPUS FLOW TEST RESULTS:

CONDUCTED 07-22-09
56 PSI STATIC
26 PSI RESIDUAL
RESIDUAL PRESSURE WITH HYDRANT OPEN AT CHINE CENTER (1 HYDRANT UP LINE) 10 PSI RESIDUAL PRESSURE WITH 2-1/4" STRAIGHT BORE DISCHARGE – 26 PSI – 772 GPM 10 PSI – 491 GMP

PUMP SCHEDULE

MARK	TYPE	MANUFACTURER	MODEL	LOCATION	VOLTAGE	HP	PHASE	GPM	FT WG	REMARKS
FP-1	PACKAGED VERTICAL FIRE PUMP	ARMSTRONG	F4516	WARSAW SPRINKLER ROOM	460	20	3	375 @ 50 PSI	–	SEE NOTES FOR FIRE PUMP DETAIL (FP-1)
JP-1	JOCKEY PUMP	ARMSTRONG	–	WARSAW SPRINKLER ROOM	208	1.5	3	10 @ 70 PSI	–	SEE NOTES FOR FIRE PUMP DETAIL (JP-1)
FP-2	PACKAGED VERTICAL FIRE PUMP	ARMSTRONG	F4516	GLENNS SPRINKLER ROOM	460	20	3	375 @ 50 PSI	–	SEE NOTES FOR FIRE PUMP DETAIL (FP-1)
JP-1	JOCKEY PUMP	ARMSTRONG	–	GLENNS SPRINKLER ROOM	208	1.5	3	10 @ 60 PSI	–	SEE NOTES FOR FIRE PUMP DETAIL (JP-1)



FIRE PUMP DETAIL (FP-1 & FP-2)

NO SCALE

SPRINKLER NOTE:

CONTRACTOR SHALL DESIGN AND PROVIDE A FULLY AUTOMATIC WET PIPE FIRE EXTINGUISHING SPRINKLER SYSTEM TO PROVIDE COMPLETE COVERAGE THROUGHOUT THIS BUILDING. SPRINKLER SYSTEM DESIGN, MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 13 AND LOCAL AUTHORITIES. SPRINKLER SYSTEM DESIGN SHALL BE BY HYDRAULIC CALCULATIONS FOR LIGHT, ORDINARY I, AND ORDINARY II HAZARD OCCUPANCIES. CONTARCT BID DOCUMENTS ARE TO SHOW INTENT ONLY.

PHASING NOTE FOR FIRE SPRINKLER.

ENTIRE SPRINKLER SYSTEM TO BE INSTALLED DURING PHASE I. REFER TO PHASING PLAN. PHASE I AND PHASE II OF THE PROJECT WILL BE SEPARATED BY A 1 HOUR WALL, UNTIL THE ENTIRE SYSTEM IS COMPLETED. LIBRARY WILL BE SEPARATED BY A 1 HOUR CONSTRUCTION ON BUILDINGS. COORDINATE THE INSTALLATION WITH DUCT WORK AND ELECTRICAL WORK AND SPRINKLER CONTRACTOR SHALL AVOID ALL DUCTWORK CONFLICTS, OR RELOCATE SPRINKLER INSTALLATION AT SPRINKLER CONTRACTOR COST. IF CONFLICT ARISES AFTER.

FIRE SPRINKLER HEAD NOTE

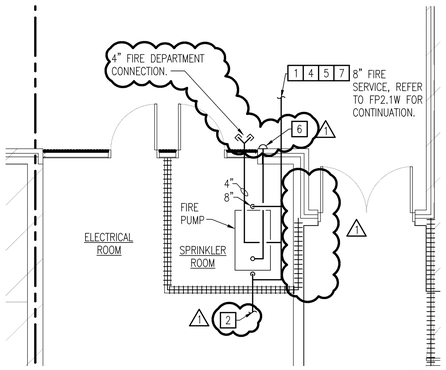
CONTRACTOR TO PROVIDE FLEXIBLE HEAD CONNECTIONS IN ACCORDANCE WITH THE REQUIREMENTS OF RAPPAHANNOCK COMMUNITY COLLEGE.

LIBRARY NOTE

CONTRACTOR TO PROVIDE PROTECTION OF ALL BOOKS PERIODICALS AND OTHER MATERIALS INCLUDING FURNITURE AND CARPETING DURING CONSTRUCTION. RESPONSIBILITY FOR DAMAGE IS ON THE CONTRACTOR.

FIRE PUMP NOTE (GLENNS ONLY):

SYSTEM IS TO BE SUPPLIED BY AN EXISTING WELL AND A NEW 22,000 GALLON STORAGE TANK. REFER TO CIVIL DRAWING FOR COORDINATION OF CONNECTIONS.



ENLARGED SPRINKLER ROOM

SCALE: 1/4" = 1'-0"

1 FP1.1G FP1.1W

NEW WORK NOTES

1. BACKFLOW PREVENTER TO BE PROVIDED AT WARSAW CAMPUS ONLY. GLENNS CAMPUS IS FED FROM A STORAGE TANK AND DOES NOT REQUIRE A BACKFLOW PREVENTER. GLENNS WILL HAVE AN AIR GAP.
2. REFER TO FP1.1 FOR CONTINUATION.
3. NOT USED.
4. FOR CONTINUATION REFER TO CIVIL PLAN FOR GLENNS ONLY.
5. PROVIDE CONDUIT FOR ALARM/CONTROLS.
6. FIRE PUMP TEST HEADER.
7. GLENNS SUPPLY WATER FROM STORAGE TANK FOR FIRE WATER ONLY IS FILLED BY AIR GAP.

GRAPHIC SCALES

1/4" = 1'-0" 5' 0' 5' 10'

nbj ARCHITECTURE
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RAPPAHANNOCK COMMUNITY COLLEGE
CAMPUS RENOVATIONS
WARSAW + GLENNS, VIRGINIA
PC: 260-17712

FIRE PROTECTION GENERAL NOTES, LEGEND, DETAILS, and SCHEDULES

Date: MARCH 3, 2010

REVISIONS	
NO.	DATE
1	FEBRUARY 9, 2010
2	MARCH 3, 2010

COMMONWEALTH OF VIRGINIA
JOHN M. NEWELL
Lic. No. 035329
3.03.10
PROFESSIONAL ENGINEER

Sheet SP0.1

File Number 9004